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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,130

11/14/2005

Peter Knoll

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09/05/2008

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EXAMINER

LIEU, JULIE BICHNGOC

ART UNIT

PAPER NUMBER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/535,130	<b>Applicant(s)</b> KNOLL, PETER	
	<b>Examiner</b> Julie Lieu	<b>Art Unit</b> 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office action is in response to Applicant's response filed June 02, 2008. Claims 21-34 have been added.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

3. Claims 11-20 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn (US 2002/0011925).

**As to claim 11**, Hahn discloses a system, thus also method for warning a driver of a motor vehicle, comprising generating, in a direction of at least one object in a field of view of the driver, at least one optical warning by at least one signaling arrangement (paras. [0016] and [0017]); the at least one object (e.g. pedestrian, see para. 0019) being situated in vicinity of the motor vehicle. See abstract and figs. 1-4.

The reference fails to literally state that the at least one optical warning is generated at least prior to the at least one object becoming visible to the driver. However, it would have been obvious to one skilled in the art that the Hahn system generates the warning prior to the object becoming visible to the driver because Hahn's system is designed to generate warning to the driver of impending danger as the objective of Hahn's invention is clearly stated in para. [0019].

**As to claim 12**, in the Hahn system, the at least one optical warning includes at least one of at least one patch of light and at least one warning symbol. See figs. 2-4 and para. [0017].

**As to claim 13**, in the Hahn system, at least one of display duration, a repetition frequency, a size, a color, and an intensity of the at least one optical warning is changeable. See para. [0010].

**As to claim 14**, the Hahn reference fails to literally state that the at least one optical warning is generated immediately prior to the at least one object becoming visible to the driver. However, the reference states that the display unit displays the specific image or symbol at locations of field of view of the operator and the duration of the specific image or symbol lying below a conscious and above an unconscious perception threshold of the operator (see abstract). Thus, it infers that the display displays the image prior to the object becoming visible to the driver. Also, it would have been obvious to one skilled in the art that the Hahn system generates the warning prior to the object becoming visible to the driver because Hahn's system is design to generate warning to the driver of impending danger as the objective of Hahn's invention is clearly stated in para. [0019].

**As to claim 15**, the optical warning in Hahn's system is generated as a function of a dangerousness of a driving situation. Para [0010].

**As to claim 16**, in the Hahn system, the at least one optical warning is at least generated as a function of an optical signal of surroundings of the motor vehicle, the optical signals being generated by at least one image-sensor system including an infrared-sensitive image-sensor system. Para [0030].

**As to claim 17**, the least one of at least one projection device and at least one head-up display shown in Hahn's serves as the at least one signaling arrangement generates the at least one optical warning. See para. [0030].

**As to claim 18**, Hahn discloses a device for warning a driver of a motor vehicle, comprising:

at least one signaling arrangement for generating at least one optical warning, the at least one signaling means including an arrangement for generating the at least one optical warning in a direction of at least one object in a field of view of the driver, and the at least one object being situated in a vicinity of the motor vehicle (paras. [0016] and [0017]), wherein the at least one signaling arrangement includes an arrangement for generating the at least one optical warning in the direction of the at least one object in the vicinity of the motor vehicle. See abstract and figs. 1-4 and para. [0030].

The reference fails to literally state that the at least one optical warning is generated at least prior to the at least one object becoming visible to the driver. However, it would have been obvious to one skilled in the art that the Hahn system generates the warning prior to the object becoming visible to the driver because Hahn's system is designed to generate warning to the driver of impending danger as the objective of Hahn's invention is clearly stated in para. [0019].

**As to claim 19**, In the Hahn system, the at least one signaling arrangement includes at least one of:

an arrangement (para. [0030]) for generating at least one of at least one patch of light and at least one warning symbol as the at least one optical warning (see figs. 2-4 and para. [0019]);

an arrangement for changing at least one of a display duration, a size, a color, and an intensity of the at least one optical warning (see para. [0010]);

an arrangement for generating the at least one optical warning as a function of a dangerousness of a driving situation (see para. [0010]).

**As to claim 20**, the Hahn system includes at least one infrared-sensitive image-sensor system for generating an optical signal of surroundings of the motor vehicle, wherein the at least one signaling arrangement includes at least one of a projection device and at least one head-up display. See figs. 1-4 and para. [0030].

**As to claim 21**, Hahn's system is a head-up display system that displays images of vehicle in front of the vehicle (para. [0020]). It is inherent that images of the object that was represented as a warning would become actual object displayed on the heads-up display once visible within the field of view of the driver. Therefore, once that image becomes an object for displayed on the heads-up display, it is distinguished from another optical warning of which is only a symbol to attract the driver's attention.

**As to claims 22-28**, the rejection of these claims recites what was stated in the rejection of claims 12-18.

**As to claims 29-34**, the rejection of these claims recites what was stated in the rejection of claims 12-17.

### *Applicant's Arguments*

4. The Applicant presented the following arguments:

**Argument 1:**

“All of the ‘information’ provided to drivers as in the ‘Hahn’ reference and shown in these figures relates to objects already visible to the driver, such as automobiles 201, 202, 203, 301, 302, and 303, and street 310. Any speculation that the sensors in "Hahn" reference could detect and display information about objects before they are visible to the driver is unsustainably beyond the scope of the ‘Hahn’ reference. This is because the purpose of the ‘Hahn’ system relates to improving the organization and presentation of information to the driver. If the ‘Hahn’ system actually contemplated distinguishing objects not yet visible to the driver, ‘Hahn’ would have been able to filter out other information presented to the driver so that the driver would not be disturbed by the representation of information without the need for subconscious cues.

Instead of focusing on the improving the organization and presentation of voluminous amounts of potentially "unnecessary" information to the driver, the presently claimed subject matter in effect eliminates the need for the ‘Hahn’ system by focusing on warning a driver of those objects in the vicinity of the vehicle that are not yet visible to the driver. The ability of the presently claimed subject matter to distinguish between objects in the vicinity of the vehicle detected before being visible to the driver greatly reduces the volume of information presented to the driver and thus obviates the need for the ‘Hahn’ system.”

**Argument 2:**

“Because the ‘Hahn’ reference focuses on presenting information about detected objects to the driver to avoid over-presenting information, such as through the use of subconscious signals, it would not have been obvious to modify the "Hahn" reference so as to distinguish those

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objects detected before they are visible to the driver, as provided for in the context of the presently claimed subject matter.

***Response to Applicant's Arguments***

5. Applicant's arguments have been fully considered but they are not persuasive.

**Response to Argument 1:**

It should be noted that the device is a head up display device, therefore, any objects detected within the field of view of a driver would be displayed, that includes automobiles 201, 202, 203, 301,302, and 303, and street 310. However, Hahn also clearly discloses that the system detects and displays information about objects that may have not been seen by the driver, for example, pedestrian nearby the vehicle (but out of direct forward field of view of the driver) and during darkness as stated in paragraph [0019]. Such image is superimposed on the head-up display. Hahn's system is to draw driver's attention to note-worthy situations to avoid possible danger by just providing subtle cues, but clearly it has the same objective of the present invention, that is to detect and display information about objects that may not be seen by driver, and better yet, Hahn's system improves the presentation and organization of information on the display so that driver can distinguish between those which have been actually seen (201....310) and those, appears as a symbol with a duration just long enough so that the driver would pay attention to, which might have not been seen by the driver.



**Response to Argument 2:**

Though Hahn's invention focuses on presenting information about detected objects to the driver to avoid over-presenting information, such as through the use of subconscious signals, the invention does actually also distinguish those objects detected before they may not be visible to the driver (pedestrian during darkness), by providing short duration symbol display as opposed to those that have been seen by the driver by presenting clear object with continuous duration on the head-up display as long as it is detected.

For the reason stated above, the rejection is maintained.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Lieu whose telephone number is 571-272-2978. The examiner can normally be reached on MaxiFlex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Julie Lieu/  
Primary Examiner  
Art Unit 2612

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